

WHAT IS CLAIMED IS:

1. A multipoint conferencing system for use in a computer network, comprising:

a plurality of conference servers coupled to the network; and

5 a link manager coupled to the network, wherein the link manager is configured to selectively assign at least some of the plurality of conference servers for the conference endpoints, to communicate at least first control signals to the selectively assigned conference servers to establish first communication links between the selectively assigned conference servers and the conference endpoints, and to communicate second control signals to the selectively assigned conference servers to establish second communication links among the selectively assigned conference servers through which the conference endpoints participating in a same multipoint conference communicate.

10 2. The multipoint conferencing system of claim 1, wherein at least one of the conference

15 servers has a first interface that is behind a firewall and a second interface that is in front of the firewall.

20 3. The multipoint conferencing system of claim 2, wherein link manager is configured to automatically establish a first communication link between one of the first interface and the second interface and the conference endpoint according to at least in part a location of the conference endpoint relative to the firewall.

25 4. The multipoint conferencing system of claim 2, wherein the link manager is configured to automatically establish a second communication link between one of the first interface and the second interface and another one of the conference servers according to at least in part a location of the second conference server relative to the firewall.

30 5. The multipoint conferencing system of claim 1, wherein the link manager is

configured to detect at least an endpoint identification of the conference endpoints.

6. The multipoint conferencing system of claim 1, wherein the link manager is configured to selectively assign at least some of the plurality of conference servers to conference endpoints according to endpoint identifications of the conference endpoints.

5 7. The multipoint conferencing system of claim 1, wherein the link manager is configured to compare endpoint identifications to a plurality of pre-determined sets of endpoint identification values, wherein each set is associated with at least one of the plurality of conference servers.

10 8. The multipoint conferencing system of claim 7, wherein one set of the pre-determined endpoint identification values correspond to addresses of a first network, and wherein another set of pre-determined identification values correspond to addresses of a second network.

15 9. The multipoint conferencing system of claim 8, wherein the first network and the second network are separated by a firewall.

20 10. The multipoint conferencing system of claim 8, wherein the endpoint identifications comprise IP addresses and wherein each set of endpoint identification values comprises a pre-determined IP address range.

11. The multipoint conferencing system of claim 8, wherein the endpoint identifications comprise E164 addresses and wherein each set of endpoint identification values comprises a pre-determined E164 prefix.

25  
12. A multipoint conferencing system, comprising:  
a plurality of conference servers each having a network interface for coupling to a computer network; and  
a link manager having a network interface for coupling to the computer network,  
30 wherein the link manager is configured to receive a request from a conference endpoint to join a multipoint conference, and wherein the link manager is configured to select one of

the plurality of conference servers for the conference endpoint in response to the request even if an endpoint identification of the endpoint is unknown to the multipoint conferencing system prior to receiving the request.

- 5        13. The multipoint conferencing system of claim 12, wherein the link manager is configured to compare an IP address of the conference endpoint to pre-determined IP address ranges associated with the plurality of conference servers when selecting one of the conference servers for the conference endpoint.
- 10      14. The multipoint conferencing system of claim 12, wherein the link manager is configured to compare an E164 address of the conference endpoint to pre-determined E164 prefixes associated with the plurality of conference servers when selecting one of the conference servers for the conference endpoint.
- 15      15. The multipoint conferencing system of claim 12, wherein at least one of the conference servers has a first interface that is behind a firewall and a second interface that is in front of the firewall.
- 20      16. The multipoint conferencing system of claim 15, wherein link manager is configured to automatically establish a communication link between one of the first interface and the second interface and the conference endpoint according to at least in part a location of the conference endpoint relative to the firewall.
- 25      17. The multipoint conferencing system of claim 12, wherein the link manager is configured to establish communication links among at least two of the conference servers through which conference endpoints communicate.
- 30      18. The multipoint conferencing system of claim 12, wherein the link manager is configured to establish communication links among at least two of the conference servers through which conference endpoints communicate.

19. The multipoint conferencing system of claim 18, wherein at least one of the conference servers has a first interface that is behind a firewall and a second interface that is in front of the firewall, and wherein link manager is configured to automatically establish a communication link between one of the first interface and the second interface and another one of the conference servers according to at least in part a location of the other one of the conference servers relative to the firewall.

5  
20. A multipoint conferencing system, comprising:

10           a plurality of conference servers coupled to a network;  
              a plurality of conference endpoints coupled to different ones of the conference servers via the network; and  
              a link manager coupled to the network, wherein the link manager is configured to set up an impromptu multipoint conference involving the conference endpoints without requiring prior knowledge of an endpoint identification of at least one of the conference 15 endpoints.

21. The multipoint conferencing system of claim 20, wherein the impromptu multipoint conference is collectively hosted by more than one of the conference servers.

20   22. The multipoint conferencing system of claim 20, wherein the link manager manages communication links between the conference endpoints and the conference servers.

25   23. The multipoint conferencing system of claim 22, wherein the link manager manages communication links between at least two of the conference servers through which at least two conference endpoints of a same multipoint conference communicate.

24. The multipoint conferencing system of claim 20, wherein the link manager is configured to detect endpoint identifications of the conference endpoints.

25. The multipoint conferencing system of claim 24, wherein the link manager is configured to selectively assign the conference servers to the conference endpoints according to at least in part the endpoint identifications.

5       26. A method of setting up an impromptu multipoint conference in a multipoint conferencing system that has a plurality of conference servers, comprising:

          receiving a request to participate in a multipoint conference from a conference endpoint, wherein one or more participating conference endpoints are served by a first one of the conference servers;

10      in response to at least in part information carried by the request, communicating at least a first control signal to a second one of the conference servers to establish a server-endpoint relationship between the conference endpoint and the second conference server; and

15      communicating at least a second control signal to the first conference server and the second conference server to establish a communication link between the conference servers through which data captured at the conference endpoint is sent to the one or more participating endpoints.

27. The method of claim 26, wherein the information carried by the request comprises an IP address of the conference endpoint.

28. The method of claim 27, comprising comparing the IP address to pre-determined IP address ranges associated with the plurality of conference servers.

25      29. The method of claim 26, wherein the information carried by the request comprises an E164 address of the conference endpoint.

30. The method of claim 29, comprising comparing the E164 address to pre-determined E164 prefixes ranges associated with the plurality of conference servers.

30

31. A link manager for a multipoint conferencing system, comprising:

means for receiving a request to participate in a multipoint conference from a conference endpoint, wherein one or more conference endpoints participating in the multipoint conference are served by a first one of the conference servers;

5 means for communicating, in response to at least in part information carried by the request, at least a first control signal to a second one of the conference servers to establish a server-endpoint between the conference endpoint and the second conference server; and

10 means for communicating at least a second control signal to the first conference server and the second conference server to establish a communication link between the conference servers through which data captured at the conference endpoint is sent to the one or more participating endpoints.

32. The link manager of claim 31, comprising means for detecting an IP address of the conference endpoint.

15

33. The link manager of claim 32, comprising means for comparing the IP address to pre-determined IP address ranges associated with the plurality of conference servers.

20 34. The link manager of claim 31, comprising means for detecting an E164 address of the conference endpoint.

35. The link manager of claim 34, comprising means for comparing the E164 addresses to pre-determined E164 prefixes associated with the plurality of conference servers.

25 36. A computer program product for use in conjunction with a computer device, the computer program product comprising a computer usable medium and a computer program mechanism embodied therein that enables the computer device to perform a method of setting up impromptu multipoint conferences hosted by a plurality of conference servers, the computer program product having:

30 computer program codes to cause the computer device to set up at least one impromptu multipoint conference among a plurality of conference endpoints, wherein the

conference endpoints of the at least one impromptu multipoint conference are served by more than one of the conference servers.

37. The computer program product of claim 36, comprising computer program codes to cause the computer device to manage communication links between the conference endpoints and the conference servers.

38. The computer program product of claim 36, comprising computer program codes to cause the computer device to manage communication links between at least two of the conference servers through which at least two conference endpoints of a same multipoint conference communicate.

39. The computer program product of claim 36, comprising computer program codes to cause the computer device to detect at least an IP address of the conference endpoints.

15 40. The computer program product of claim 36, comprising computer program codes to cause the computer device to establish communication links between the conference endpoints and the plurality of conference servers according to IP addresses of the conference endpoints.

20 41. The computer program product of claim 40, comprising computer program codes to cause the computer device to compare the IP addresses to a plurality of pre-determined IP address ranges associated with the plurality of conference servers.

25 42. The computer program product of claim 36, comprising computer program codes to cause the computer device to detect at least an E164 address of the conference endpoints.

43. The computer program product of claim 36, comprising computer program codes to cause the computer device to establish communication links between the conference endpoints and the plurality of conference servers according to E164 addresses of the conference endpoints.

44. The computer program product of claim 43, comprising computer program codes to cause the computer device to compare the E164 addresses to a plurality of pre-determined E164 prefixes associated with the plurality of conference servers.